Conclusion Results have shown significant down regulation of FABP4 and PPARG in 3T3-L1 adipocytes induced by HCT 116 colon cancer cells. Rosiglitazone, a potent PPARG agonist, could not rescue expression of FABP4 in 3T3-L1 co-cultured adipocytes. These results provide evidence of colon cancer cell induced adipocyte de-differentiation through PPARG antagonism, which may have a role in sustaining cancer cell survival and progression.

PWE-058 COLONOSCOPY SURVEILLANCE FOR ADENOMATOUS POLYPS: ARE WE DOING IT RIGHT! A RETROSPECTIVE AUDIT

Imran Tahir*, Ben Hicken, Danny Cheung. *Worcestershire Acute Hospitals NHS trust, Worcester, UK*

10.1136/gutjnl-2019-BSGAbstracts.383

Introduction Colorectal cancer (CRC) is the third most commonly diagnosed cancer worldwide. The identification of colonic polyps can reduce CRC mortality through earlier diagnosis and removal of polyps: the precursor lesion of CRC. Following the initial colonoscopy, finding and removal of a polyp, some patients are at increased risk of developing CRC in the future. This is the rationale for post-polypectomy surveillance colonoscopy. Not all polyps seen are adenomas with potential of malignant transformation. The potential benefits of surveillance procedures must be weighed against the burden of colonoscopy: resource use, the potential for patient discomfort, and the risk of complications. The aim was to assess the practice for polyp surveillance against gold standard BSG guidelines based on polyp number, size and histological features.

Methods A retrospective audit of colonoscopies performed in Worcestershire Acute Hospitals NHS Trust in 2017 where polyps were reported. Patients were excluded if cancer was identified, a duplicate procedure performed or they were on another surveillance programme. Colonoscopy reports, histology and clinic letters were reviewed to assess planned follow-up and compliance.

Results 1378 colonoscopies reported polyps. 260 patients were excluded. 1118 patient notes were reviewed. 674 men (60%) and 444 females (40%) were assessed with an average age of 67. 965 (86%) were compliant with BSG guidelines. 153 (14%) patients were not compliant. Of those not compliant, 16 (10%) should have been screened more frequently and 102 (67%) should have received less frequent colonoscopy follow-up. 35 (23%) patients did not require any follow-up as histology did not demonstrate an adenoma incurring a cost implication of £16,275 to the trust (£465 tariff per procedure).

Conclusions The results provide insight into the importance of appropriate surveillance. It highlights the implications of unnecessary procedures in terms of costs, psychological stress and risks associated with the procedure. Of those not requiring follow-up it was apparent the endoscopist was predicting the follow-up timescale prior to receiving the histology report, commonly mis-identifying hyperplastic polyps as adenomas. The predicted size of the polyp also varied between endoscopist and histologist. Keeping a record of surveillance patients and filtering out un-necessary procedures may reduce this risk.

PWE-059 qFIT IS A VALUABLE TRIAGE TOOL FOR SYMPTOMATIC COLORECTAL PATIENTS

Michelle Thornton*, Laura Herron, Ian Godber, Martin Downey, Hakim Benyounes. *Nhs, Wishaw, UK*

10.1136/gutjnl-2019-BSGAbstracts.383

Introduction To prospectively assess the predictive value of qFIT in symptomatic colorectal patients

Methods Following a pilot in 2013, all symptomatic colorectal patients referred to secondary care were required to provide a stool sample for qFIT testing. A qFIT result >9.9 was deemed positive. Patients were clinically reviewed or investigated dependent on symptoms and fitness. A prospective database allowed for electronic case note and GP record review of all patients in December 2018. The database was cross-referenced with the colorectal cancer database.

Results Between July 2013 and September 2018, 4425 patients were tested, 2891 negative (65%). Data is provided on all patients with complete colorectal investigations or no investigations but greater than 6 months validated clinical follow-up. Of the 2443 negative patients (85%) with complete data, 16 colorectal cancers (crc), 11 high risk adenomas (HRA), 40 inflammatory diagnoses (IBD) and 151 low risk adenomas (LRA) were diagnosed. The cumulative NPVs were 99.3%, 98.9%, 97.3% and 91.1% respectively.

Of the 1477 positive patients (96%) with complete data, 99 crcs, 22 HRAs, 66 IBD and 202 LRA were diagnosed. The cumulative PPVs were 6.7%, 8.2%, 12.7% and 26.3% respectively. In those patients with a qFIT >399 (n=396) 51 crcs, 6 HRA, 19 IBD and 45 LRA were diagnosed, giving cumulative PPVs of 12.9%, 14.4%, and 30.6%.

Conclusions qFIT is a valuable tool to safely triage patients. The result allows for priority access to resource limited investigations and can help avoid risk in patients who test negative.

PWE-060 CT COLONOGRAMS IN ELDERLY PATIENTS, A SAFE AND ACCURATE COLONIC EXAMINATION

Neel Raja, Michael Adeleye, Bhavini Billimoria, Ajay Verma*. *Kettering General Hospital NHS FT, UK*

10.1136/gutjnl-2019-BSGAbstracts.384

Introduction In Kettering General Hospital (KGH) we perform almost 500 CT colonograms (CTCs) annually for patients who; do not want, are unable to tolerate, or have failed a colonoscopy (which is considered the "gold standard" colonic examination). The most common reasons for CTC are iron deficiency anaemia, and change in bowel habit, often with the aim of detecting colorectal cancer (CRC).

We have seen an increase over time, in the use of CTC in elderly patients, as a first line investigation. With an ageing population, we explore the significance of performing this examination, in an elderly population who may not be suitable for further investigation/intervention.

Methods We reviewed 1479 patients who had undergone a CT Colonogram between October 2015 and October 2018. Of these, we focused on patients aged ≥80 at the time of scanning. CTC reports were analysed and categorised into those with positive, indeterminate findings, and those with no significant findings. All patients ≥80 years old were followed up (via their electronic records) to observe their outcomes.

Results 1479 patient underwent a CTC at KGH during the 3-year period. 454 patients were aged ≥ 80 years old (30.7%) – mean & median age 84, range 8–7. 69 patients had positive colonic findings (15.2% - see figure). Of which, 31 had CRC reported (14 operated straight away, 5 had endoscopy then surgery, 1 had endoscopy only (no tumour seen), 11 were not operated on). 22 had polyps reported (13 had endoscopy at which 12 had polypectomy, 9 did not have endoscopy). 16 had indeterminate findings (10 had endoscopy which nil significant found).

Of the 385 patients who had CTCs with nil significant colonic findings, 9 had extra colonic tumours. At follow up (105 patients in 12 months from October 2015, 137 patients in 201–7, 143 patients in 201–8, range 0 – 36 months), none of the patients have been diagnosed with CRC thus far.

Conclusion In this study, CT colonography was used in elderly patients aged ≥ 80 years old as a first or second line colonic examination. The yield of diagnosing colorectal cancer was 6.9% (31/454). CTC that reported negatively for colonic findings seems to protect patients for –6 months.

Whilst colonoscopy may be the preferred diagnostic test for colonic disease, it is an invasive test with a small risk of perforation. CTC is safer, and better tolerated. The reports are generally accurate with regards to significant colonic findings, especially when diagnosing CRC. This study does confirm the safety and efficacy of CTC and suggests that it is an appropriate colonic investigation for elderly patients (aged ≥ 80 years old) first or second line.

PWE-061 YOUNG-ONSET COLORECTAL CANCER PRESENTATION IN A DGH POPULATION COMPARED TO OLDER-ONSET PATIENTS

¹Siyao Xing*, ¹Suzanne Pomfret, ¹Jonathan Landy, ²Drostan Cheetham, ¹Susan Catnach.
¹Gastroenterology Dept, West Hertfordshire Hospitals NHS Trust, Watford General Hospital, Watford, UK; ²Department of Colorectal Surgery, West Hertfordshire Hospitals NHS Trust, Watford General Hospital, Watford, UK

10.1136/gutjnl-2019-BSGAbstracts.385

Background and Aims The incidence of colorectal cancer (CRC) in patients under 50 years of age is increasing although it is still a rare diagnosis in this age group. However, data suggest young-onset CRC patients have a delayed presentation with higher rates of advanced disease stage at diagnosis. Diagnostic algorithms that increase the specificity of investigations for symptomatic patients in this age group are needed. We aimed to assess features of presentation in young-onset CRC patients in our population and to compare features at presentation with older onset patients.

Methods The trust cancer database was reviewed for all patients with a diagnosis of CRC between May 2015 and 2018. Patients diagnosed under the age of 50 were included in the young-onset group. Older onset CRC patients were matched 4:1 by gender and site of tumour (right colon/left colon/rectum). Electronic records were evaluated for presentation and laboratory parameters at diagnosis. Fisher's exact test was used for statistical analysis; odds ratios and confidence intervals were calculated where statistically significant (α 0.05) differences between groups were identified. Data was analysed using GraphPad Prism 5.

Results 43 patients with a diagnosis of CRC aged less than 50 were identified (6% of all CRC diagnoses). 56% were male with a median age of 40 (IQR 3–6). The most common

symptoms at presentation were constipation or diarrhoea (44%), pain (42%) and rectal bleeding (37%). 26% had ≥ 2 symptoms at presentation. None had a documented significant family history of CRC. In young-onset CRC patients, 49% of tumours were in the left colon, 28% in the right colon and 23% in the rectum. 37% were emergency presentations compared with 26% in the older onset CRC group (ns). 56% presented with Stage 3 or 4 disease compared with 49% in patients ≥ 50 years (ns). 1-year survival was 93% in young-onset CRC patients v 86% in patients ≥ 50 years (ns). 51% of young-onset CRC v 31% in patients ≥ 50 years were anaemic at presentation ($p=0.02$; OR 2.3 95% CI 1–.5). 26% of young-onset CRC v 10% in patients ≥ 50 years had elevated platelet counts at diagnosis ($p=0.02$; OR 2.9 95% CI 1.3–6.8).

Conclusion In our population young-onset CRC patients there was a trend towards higher rates of emergency presentation and advanced disease stage, as well as a higher 1-year survival rates, although these were not statistically significant compared to older onset CRC patients. A significantly higher proportion of young-onset CRC patients were found to be anaemic and or have elevated platelet counts at diagnosis. Elevated platelet count as well as blood haemoglobin should be investigated further leading to possible incorporation into diagnostic algorithms that might increase the specificity of investigation for symptomatic patients in this age group.

PWE-062 A RETROSPECTIVE REVIEW OF COLO-RECTAL CANCER IN YOUNG ADULTS

Umair Kamran*, Abdullah Abbasi, Mohsin Zia Sana Ullah, Helen Wright, Arooj Abid, Arun Kurup. University Hospitals of North midlands, Stoke on trent, UK

10.1136/gutjnl-2019-BSGAbstracts.386

Introduction The aim of this study was to assess the trends in clinical presentations and anaemia among young adults [age < 50] with colorectal cancer at the time of diagnosis.

Methods This was a retrospective observational study. The identity of young adults diagnosed with colorectal cancer between 200–017 were obtained from the Somerset cancer data base. Clinical information about the patient was obtained from the electronic patient database [I portal] Descriptive statistics and survival outcomes were performed using SPSS software

Results 171 patients were identified over a period of 8 years (102 males vs 69 females) with median age of 46 years. Prior to diagnosis, the mean duration of symptoms for men was 99 days and for women 91 days. The majority of both male and female patients presented with rectal bleeding (53.7% and 46.3% respectively). Abdominal pain was more common among patients diagnosed with right sided colon cancer compared to the left ,41.2% vs 20.2%, $p=0.0046$ [95% CI 6.1–6.01]. Almost half (49.02%) of the patients were anaemic at the time of diagnosis. Incidence of anaemia was significantly higher in right sided cancers as compared to left colon cancers [74% vs 40% respectively $p=0.0001$]. Microcytic anaemia [mcv < 80] was seen in 25.2% patients. Post hoc analysis showed that MCV was significantly lower in patients with cancer in the right colon, compared to those with it in the rectum ($p=0.01$). Rectum was the most common site of the tumour (47.95%) and 73% (116) of patients were diagnosed at advanced stage (stage III/IV).